



Texas Industry Clusters Initiative and FAQ

Texas Governor Rick Perry - Press Releases

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Industry Cluster Initiative

Strategic Plan

Governor Rick Perry has made job creation and economic development one of his top priorities as the only sure path to future prosperity and to funding the state's important priorities like education and health care. Furthermore, in 2003 the Texas Legislature passed SB 275 calling for the development of strategies to strengthen the competitiveness of key industry clusters. As a result, the state is required to identify the clusters, including a number of specified industries, and develop strategies to address economic growth and quality of life issues.

By identifying industry clusters, the State of Texas will be better positioned to compete nationally and internationally for jobs of the 21st century. By focusing on these clusters, Texas will be able to maximize its limited resources to monitor specific regional workforce and economic conditions and to develop plans of action to bring new jobs to Texas. Other industries link to the target clusters, and will also benefit from this approach, as success in these core clusters increases long-term competitiveness and regional prosperity in other industries.

To launch this initiative, the Office of the Governor, Economic Development and Tourism division and the Texas Workforce Commission (TWC) are forming state and regional partnerships to foster growth and



development in the six target clusters. This initiative also will lead the development of industry-based strategies for recruitment and expansion within the state.

Objective

The objective of the Industry Cluster Initiative is to stimulate long-term sustained growth and focus the allocation of state resources on key industry clusters that economists say will be the engine of job creation and economic development in the 21st century.

Industry Cluster Defined

SB275, Government Code, Section 481.001 (6)

"Industry cluster" means a concentration of businesses and industries in a geographic region that are interconnected by the markets they serve, the products they produce, their suppliers, the trade associations to which their employees belong, and the educational institutions from which their employees or prospective employees receive training.

Organization and Management

SB275, Government Code, Section 481.0295 (d)

The office shall work with target sectors, private sector organizations, key state agencies, local governments, local economic development organizations, and higher education and training institutions to develop strategies to strengthen competitiveness of industry clusters.

Governor Perry will appoint a chair from industry in each target cluster to form teams to meet the required objective. Teams will represent a broad cross-section of public and private sector stakeholders statewide and will be comprised of those individuals who best represent the core function, product and technology within the cluster. These industry representatives



will intimately understand the resources required to increase the capacity for innovation thereby accelerating the growth of the cluster.

An Industry Initiatives Manager will be assigned to each cluster to coordinate activities and manage deliverables through the industry chair. Cluster teams will also assist on-going expansion and recruitment projects, with the Industry Initiatives Manager acting as the liaison for these projects.

Competitive Assessment

The first task of each industry cluster team will be to conduct a comprehensive competitive assessment of the cluster and recommend allocation of state resources. These recommendations will also contribute to long-range planning for the retention, expansion and recruitment efforts of each target cluster. At a minimum, elements of this evaluation will include the following:

- Current and prospective supply, cost and skill level of workforce,
- Education and training resources and their capacity to support the workforce,
- Identification of existing companies that constitute the cluster,
- Global competitive market position of the cluster,
- Infrastructure strengths and limitations affecting the cluster,
- Regulatory strengths and weaknesses at the federal, state and local levels,
- Tax, tort or other business climate issues that adversely affect the cluster, and
- Identification of primary domestic and foreign competitive threats.



Action Plan

The cluster team chair will submit the final assessment and recommendations to the Governor's Office. Each chair will propose how to allocate resources among the target clusters based upon existing and predicted market forces and conditions and develop a legislative plan to address any regulatory, taxation or other business climate issues. Resource allocation will include, but not be limited to, the following:

- Allocating state and federal workforce dollars to those target occupations within target clusters.

- Directing infrastructure funding to the regions and locations where weaknesses exist.

- Targeting secondary and higher education funding into subjects and curriculums with the most relevance to the target clusters.

- Targeting research and development funding to areas and institutions that foster the growth of the cluster.

- Allocating adequate marketing resources to recruit new employers domestically and internationally.

Additionally, cluster teams will continually monitor the competitiveness of the industry cluster and closely coordinate team activities with the state to efficiently react to opportunities and threats affecting the cluster. They will also contribute to long-range planning for the retention, expansion and recruitment efforts of each target cluster.

Texas' Industry Clusters SB275, Government Code

Section 481.022 (6)—*Requirement to establish strategy*
The office shall establish a statewide strategy to address economic growth and quality of life issues, a component of which is based on the identification and development of industry clusters [provide businesses and local communities with timely and useful research and data services;



Section 481.0296 (a) (1-6)—*Requirement to target six sectors ADVANCED TECHNOLOGY INDUSTRIES. (a) The office shall coordinate state efforts to attract, develop, or retain technology industries in this state in certain sectors, including:*

1. the semiconductor industry;
2. information and computer technology’
3. microelectromechanical systems;
4. manufactured energy systems;
5. nanotechnology; and
6. biotechnology.

The target competitive clusters are based on the 2001 Cluster Mapping project, a multiyear effort to statistically define clusters and analyze regional economies in the United States by Dr. Michael Porter of the Institute for Strategy and Competitiveness at Harvard Business School, and on the work of Dr. Ray Perryman in Texas Our Texas, a 2002 report on the Texas’ economy.

The continuing work over the past two years by the Council on Competitiveness and the Institute for Strategy and Competitiveness in the Clusters of Innovation project has clearly articulated the key strategic role that strong regional economies play in growing prosperity for a state and its citizens.

Advanced Technologies and Manufacturing, including four sub-clusters:

- Nanotechnology and Materials
- Micro-electromechanical Systems
- Semiconductor Manufacturing
- Automotive Manufacturing



Aerospace and Defense

Biotechnology and Life Sciences, not including medical services

Information and Computer Technology, including three sub-clusters:

- Communications Equipment
- Computing Equipment and Semiconductors
- Information Technology

Petroleum Refining and Chemical Products

Energy, including three sub-clusters:

- Oil and Gas Production
- Power Generation and Transmission
- Manufactured Energy Systems

Rationale for Selection of Industry Clusters

1. Advanced Technologies and Manufacturing, including four sub-clusters

The Advanced Technology Industries identified in SB 275 are significantly represented in this cluster. The focus within this cluster is on "advanced" manufacturing which requires higher skills and thus results in higher wages and investment in the state. The advanced technologies involved in automotive manufacturing are included because of the still growing automotive sector in Texas.

2. Aerospace and Defense

Texas already has a critical mass of companies that are a part of this cluster doing business in the state. Given recent federal funding and current trends indicating more investment in the future by both the private and public sectors in the cluster, aerospace and defense is a natural target for accelerated economic development. Just as with the



related Advanced Manufacturing cluster, Aerospace and Defense firms are both technology and skill intensive resulting in higher wage jobs.

3. **Biotechnology and Life Sciences**

While not a major employment generator to date, current and future industry trends indicate that this cluster will grow rapidly and that Texas has a growing critical mass of companies and entities positioning the state to be globally competitive. This technology intensive cluster will require a wide range of skilled workers. Areas of focus within the cluster will include but not be limited to both human and agricultural biotechnology, medical devices, pharmaceutical manufacturing and healthcare research and development.

4. **Information Technology and Computer Technology, including three sub-clusters**

This cluster is well established in Texas. While it has experienced significant downsizing and realignment over the past several years, it will remain an important part of the Texas economy. This cluster will experience changes in the employment mix as new technologies are applied not only within the cluster but also in other industries. Some natural synergies exist between this cluster and the Biotechnology (i.e. bioinformatics) and Advanced Technologies and Manufacturing clusters.

5. **Energy, including three sub-clusters**

Texas is in a leadership position in this cluster because of the well-established energy sector and infrastructure in the state. The greatest upside potential in this cluster may well be the development of new technologies in the traditional sectors (oil and gas exploration) in conjunction with the development of new energy sources and the technologies to exploit them (hydrogen, wind, biomass, etc.). Energy distribution and marketing industry will be contained within this cluster.

6. **Petroleum Refining and Chemical Products**

Once again, Texas is in a leadership position with a strong employment, technology and infrastructure base in this cluster, all of



which positions the state to remain a world leader in the industry. There will be numerous synergies between the Energy and Petroleum Refining and Chemical Products clusters.

Industry Cluster Initiative FAQ

"The cluster initiative is important because for the first time in the history of this state we will be able to develop a coordinated, market-driven economic development plan for the state of Texas."

Gov. Rick Perry

Q: What is an industry cluster?

A: Industry cluster means a concentration of businesses and industries in a geographic region that are interconnected by the markets they serve, the products they produce, their suppliers, trade associations and the educational institutions from which their employees or prospective employees receive training. While located in close proximity, these industry clusters are economic in nature and not geographically bounded.

"Clusters rely on an abundance of ideas and talent. In a cluster, an employer has access to professional colleagues, suppliers, customers, skilled labor, research and development institutions, and industry leaders all in close geographic proximity."

Gov. Rick Perry

Q: What industry clusters do we want to develop?

Advanced Technologies and Manufacturing:

Nanotechnology and Materials



Micro-electromechanical Systems
Semiconductor Manufacturing
Automotive Manufacturing

Aerospace and Defense

Biotechnology and Life Sciences (not including medical services)

Information and Computer Technology:

Communications Equipment
Computing Equipment and Semiconductors
Information Technology

Petroleum Refining and Chemical Products

Energy

Oil and Gas Production
Power Generation and Transmission
Manufactured Energy Systems

"It is critical that we marshal all of our resources, such as innovations and worker training programs at our two-year and four-year colleges, and local, state and federal incentive dollars toward supporting the technology-based economic activity that can create new wealth and new opportunities."

Gov. Rick Perry

Q: Why should we develop clusters?

A: Gov. Perry's objective with the cluster initiative is to stimulate sustained growth and direct the allocation of limited state resources in a manner that optimizes prospects for success.



Our economy is becoming more technology and knowledge-based and Texas must be positioned to efficiently meet the needs of business and effectively communicate our competitive advantages. Clusters thrive on the transfer of knowledge or know-how and increase competitiveness and innovation. Working in close coordination with this concentrated network of industry leaders from across the state will result in efficient use of resources and continued diversification of our industry portfolio, simultaneously increasing our capacity for innovation and growth in emerging technologies.

Furthermore, SB275 (78th Legislature) mandated the establishment of statewide strategies to address economic growth and quality of life issues, a component of which is based on the identification and development of industry clusters. It also called for coordination of state efforts to attract, develop or retain technology industries in this state in certain sectors, which are now included among the target clusters.

"This effort is about much more than competing with neighboring states for jobs, it is about putting Texas at the forefront of the global marketplace,"

Gov. Rick Perry

Q: Why weren't all industries in Texas included in the clusters plan?

A: The clusters identified are primarily technology-based as we look to meet the projected demands of the future. These clusters indicate the spheres in which we anticipate having the greatest advantage and ultimately maximum return on investment.

"I realize there are critics who believe investments in job creation come at the expense of investments in government programs. I disagree. To fund priorities like healthcare and education, you



need the revenue generated by keeping and attracting jobs.”

Gov. Rick Perry

Q: How were the industry clusters selected?

A: The target competitive clusters are based on the 2001 Cluster Mapping project, a multiyear effort to statistically define clusters and analyze regional economies in the United States by Dr. Michael Porter of the Institute for Strategy and Competitiveness at Harvard Business School, and on the work of Dr. Ray Perryman in Texas Our Texas, a 2002 report on the Texas’ economy. The continuing work over the past two years by the Council on Competitiveness and the Institute for Strategy and Competitiveness in the Clusters of Innovation project has clearly articulated the key strategic role that strong regional economies play in growing prosperity for a state and its citizens.

Q: How will the advisory or cluster teams work?

A: Governor Perry will appoint a chair in each industry area. Teams represent a broad cross-section of public and private sector stakeholders statewide and are comprised of those individuals who best represent the core function, product and technology within the cluster. These industry representatives intimately understand the resources required to increase the capacity for innovation thereby accelerating the growth of the cluster.

Q: What are the objectives of the teams?

A: As we quickly approach the next Legislative session, teams will be meeting this month to discuss deliverables including the status of competitive assessments, responses to immediate opportunities (i.e. federal grants, prospects, etc.), mapping the clusters and recommendations for the Legislature.

Beyond that, the first task of each industry cluster team will be to conduct a comprehensive competitive assessment of the cluster.



At a minimum, elements of this evaluation will include the following:

- Current and prospective supply, cost and skill level of workforce,
- Education and training resources and their capacity to support the workforce,
- Identification of existing companies that comprise the cluster,
- Infrastructure strengths and limitations affecting the cluster,
- Regulatory strengths and weaknesses at the federal, state and local levels,
- Tax, tort or other business climate issues that adversely affect the cluster, and
- Identification of primary domestic and foreign competitive threats.

Using results from that assessment, cluster teams will make recommendations towards the allocation of state resources based upon existing and predicted market forces and conditions and suggest a legislative plan to address any regulatory, taxation or other business climate issues. These recommendations will also contribute to long-range planning for the retention, expansion and recruitment efforts of each target cluster.

Resource allocation will include but not be limited to the following:

- Allocation of state and federal workforce dollars to occupations within clusters for workforce training or education development.
- Directing infrastructure funding to the regions and locations where weaknesses exist.
- Targeting secondary and higher education funding into subjects and curriculums with the most relevance to clusters.
- Targeting research and development funding to areas and institutions that foster the growth of the cluster.
- Allocating adequate marketing resources to recruit new employers domestically and internationally.



Additionally, cluster teams will continually monitor the competitiveness of the industry cluster and closely coordinate team activities with the state to efficiently react to opportunities and threats affecting the cluster. They will also contribute to long-range planning for the retention, expansion and recruitment efforts of each target cluster.

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